Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

on Solar Physics. It was natural that his labors as director of a meteorological observatory should attract his attention to even geological speculation, and we find several papers by him on Geology. In a late article in the Philosophical Magazine, he discusses the various theories which have been propounded to account for the magnetism of the earth, and puts forth the theory that it may be due to electrical currents circulating in the upper regions of the atmosphere, — the phenomena of the aurora being the discharge from the earth to the upper regions, or the discharge from the upper regions to the earth, — thus giving evidence of electrical currents. His paper in conjunction with Tait upon the heating of a disk of metal or ebonite by rapid rotation *in vacuo* is very suggestive in reference to the motion of heavenly bodies through space, and seems to afford color to the hypothesis of the dissipation of energy.

The closing period of his life was marked by that indulgence in peculiar physical speculations which were perhaps the outcome of a Scotch theological and philosophical environment. In "The Unseen Universe," and in the "Paradoxical Philosophy," both of which were written in conjunction with Professor Tait, we find an interesting expression of the thoughts which labors in a laboratory cannot fail to excite in a physicist's mind. The Unseen Universe is a valuable contribution to modern theological speculation, and affords the believer in miracles and the resurrection grounds for his belief, in the facts and great hypotheses of physical science. The evidence thus presented for a belief is especially interesting when compared with the historical evidences. The authors affirm, "As one result of this inquiry, we are led by strict reasoning on purely scientific grounds to the probable conclusion that a life for the unseen, through the unseen, is to be regarded as the only perfect life."

It is curious to reflect that the country which has produced a Reid and a Dugald Stewart now expresses its highest philosophical thought, not in metaphysics, but in physics. The student can find ample illustration of this in the writings of James Clerk Maxwell, of Sir William Thomson, and of Balfour Stewart.

BERNHARD STUDER.

Professor Bernhard Studer was born at Buren, near Bern, in August, 1794, and died at the ripe old age of ninety-three in the city of Bern, Switzerland, on the 2d of May, 1887.

He was educated as a clergyman, but never entered the ministry. After studying at the University of Göttingen, Studer became so intensely interested in geology, that he resolved to consecrate all his life to the hard work of trying to disentangle the very complicated geological structure of his native country, the Oberland or Bernese Alps. His first work, as a sort of preliminary, was his "Monographie der Molasse," published in 1825. Considering the time and the state of palæontological knowledge, Studer showed capacity of the first order as a minute, diligent observer, and great skill for generalization, on a practical geological question, very little understood until his monograph.

Then Studer commenced in earnest his exploration of the Alps of the Valais, Vaud, Fribourg, Bern, and Lucerne, publishing excellent descriptions of the different large *massifs* of the Grand Saint-Bernard, of Monte Rosa, of the Simplon, St. Gothard, the Bernese Oberland, the country between the lakes of Thun and Lucerne, and his great work on the Swiss Occidental Alps, with a most important Atlas, Leipzig, 1834.

It can be said of him that he is the first geologist who has delineated and fixed the theory of *massifs* of the Alps, explaining them by the eruptive forces. Studer opposed sternly the opinions expressed lately by Ed. Süss of Vienna, and remained to the last a partisan of the Von Buch theory.

His "Geologie der Schweiz," in two volumes, Bern, 1851–53, is one of the best *résumés* ever published of the geology of a whole country, — clear, exact, well balanced, and extremely just towards all his contemporaries and brother geologists of the Alps and the Jura. In connection with this masterly work, Studer published, with his friend Arnold Escher von der Linth, "La Carte géologique de la Suisse," in four sheets; and a reduction in one sheet, two years later, 1855. The part of Escher von der Linth relating to the Geology of the Eastern Alps of Switzerland and Voralberg is on a level with Studer's researches; and his extremely difficult studies of the area of the cantons of Uri, Unterwalden, Schwytz, Glaris, and St. Gall can compare with the most complicated stratigraphy ever published in any country.

In 1859, Studer, entirely by his own exertions and direct influence, obtained from the federal government of Switzerland the organization of the Geological Survey, in view of publishing a Geological Map of Switzerland on the scale of 1 : 100,000. Studer was appointed President of the Commission, and until the last day of his life he directed the work admirably, and succeeded almost in bringing it to its close, for he saw the proof of the last sheet of the "Carte géologique de la Suisse" colored on the topographical map of General Defour, shortly before his death.

Studer was an excellent organizer, and he did a great deal as such, first at the University of Bern, then at the federal Polytechnic School of Zurich, and also as Director of the Geological Survey.

Short in stature, — he was called among his friends and contemporaries "le petit Studer," — of slender frame, and light-footed, he was one of the best Alpine climbers. He associated or got help from all the geologists who studied the Alps and the Jura. Being very honest and free in his opinions, he gave every one his due, and at the same time kept pace with all the progress that was made. At first Studer opposed the glacial theory of Venetz, De Charpentier and Agassiz; but, after several years spent in a close study of the question in the field, he became converted, and was afterward one of the most diligent propagators of the new doctrine.

He had the reputation of being an excellent friend, and quite witty, like his celebrated cousin, the minister Bitzius (Jeremy Gotthelf) of the Emmenthal, the author of the "Miroir des Paysans," the "Nouvelles Bernoises," and of so many remarkable novels on the life of the Bernese country people. Studer used to say, "Ce qu'il y a de plus remarquable dans Lyell, c'est Lady Lyell," — a compliment which highly pleased Sir Charles, who clapped his hands, the first time he heard it, exclaiming, "True! true!" But the witty remark applied exactly to himself, for Mrs. Studer was also a very remarkable lady in more than one sense. Neither Lyell nor Studer had any children, and they were able, with the great help of their wives, to consecrate all their time and life to the study of Geology.

With him disappears the last illustrious *savant* of the second generation of great geologists, who have built Geology up little by little. Studer came after Humboldt, Von Buch, Friesleben, William Smith, Alexandre Brongniart, Prévost, Cordier, D'Omalius, De Charpentier, De la Bèche, Conybeare, Buckland, etc., and from 1825 to 1880 he maintained his position as one of the best practical geologists in a time when they could point to such men as Élie de Beaumont, Sedgwick, Lyell, Murchison, Brown, Goldfuss, Frederic A. Romer, Alcide d'Orbigny, De Verneuil, D'Archiac, Agassiz, Barrande, Jules Pictet de la Rive, Boué, Escher von der Linth, Oswald Heer, Thurmann, etc.

Studer was present at the first meeting of the Society of the Swiss Naturalists (Société Helvétique des Sciences Naturelles) at Geneva, on the 6th of October, 1815, and he enjoys the unique distinction of having been a member during seventy-two years of the first association ever founded for the advancement of science.

Since the last Report, the Academy has received an accession of four members, A. L. Rotch, George F. Swain, Elihu Thomson, and Crawford H. Toy, all as Resident Fellows. The list of the Academy, corrected to date, May 29, 1888, is hereto added. It includes 178 Resident Fellows, 99 Associate Fellows, and 64 Foreign Honorary Members.